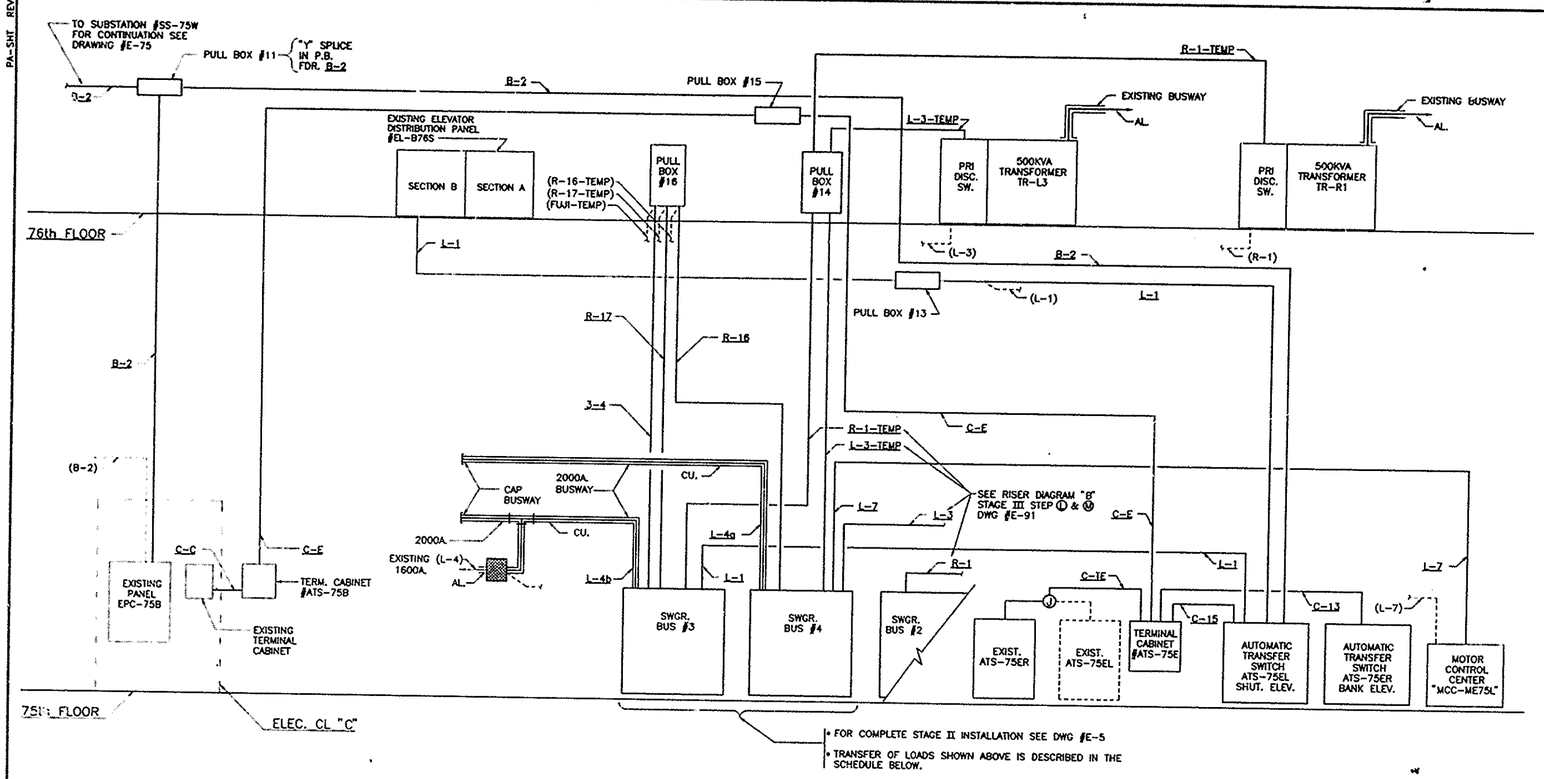

RISER DIAGRAM

STAGE II STEP (I) – DWG #E-5

(SEE NOTE #4)

SCHEDULE STAGE II STEP (I) – TRANSFER LOADS TO BUS #3 & 4

LOAD OUTAGES – SEE NOTE #5
* = CATEGORY "A" OR "B"
* * = CATEGORY "C"

CONDUIT DESIGNATION

– SHUTTLE ELEVATORS –

CONTROL FOR SHUTTLE & BANK ELEVATORS

CDTE. # C-13, C-15, C-E, & C-IE

a. – INSTALL C CDT & WIRE FROM SHUTTLE & BANK ELEVATOR TRANSFER SWITCHES, AS SHOWN ABOVE

b. – CONNECT ALL CONTROL WIRES AS SHOWN ON DWG. #E-99 LEGEND – (4).

L-1 NORMAL FEEDER TO SHUTTLE ELEV.

a. – INSTALL L-1 CDT & WIRE FROM SWGR. BUS #3 TO TRANSFER SWITCH

b. – INSTALL CDT. L-1 FROM TRANSFER SWITCH TO POINT OF CONNECTION TO EXIST. CDT.

** SEE NOTE #3 – c. – REMOVE EXIST. FDR (L-1) FROM PNL EL-B76S BACK TO EXIST. SWGR.

d. – CUT EXIST. CDT. (L-1) & REMOVE TO EXIST. SWGR.

* – MAKE CONNECTION TO EXIST. CDT. AND INSTALL FEEDER FROM TRANSFER SWITCH TO PANEL EL-B-76 VIA PULL BOX #13 (ENERGIZE)

B-2 EMERG. FEEDER TO SHUTTLE ELEV.

a. – INSTALL B-2 CDT & WIRE FROM TRANSFER SWITCH TO EXIST. PANEL #EPC-75B, VIA P.B. #11.

*—— b. – DISCONNECT EXIST. & CONNECT FDR (B-2) AT PANEL. (ENERGIZE)

c. – DISCONNECT EXIST. & CONNECT CONTROL WIRING DESIGNATED (3B) ON DWG. #E-99.

d. – REMOVE EXIST. FDR (B-2) & CONTROL WIRES BACK TO EXIST. ELEV. TRANSFER SWITCH.

L-7 MOTOR CONTROL CENTER – MCC ME75L

a. – INSTALL L-7 CDT & WIRE FROM SWGR. BUS #4 TO MCC-ME75L.

b. – DISCONNECT EXIST. & CONNECT FDR L-7 AT MCC-ME75L. (ENERGIZE)

c. – REMOVE EXIST. FDR & CDT. L-7 BACK TO SWGR.

L-3-TEMP 208/120V. TRANSF. ELEC CLOS "E" 59-74th FLR'S.

a. – INSTALL L-3-TEMP CDT & WIRE FROM SWGR. BUS #4 TO 500KVA TRANSFORMER VIA P.B. #14

*—— b. – DISCONNECT EXIST. & CONNECT FDR L-3-TEMP AT TRANSFORMER (ENERGIZE)

c. – REMOVE EXIST. FDR. L-3 BACK TO SWGR.

R-1-TEMP 208/120V. TRANSF. ELEC CLOS "E" 77-92nd FLR'S.

a. – INSTALL R-1-TEMP CDT & WIRE FROM SWGR. BUS #3 TO 500KVA TRANSFORMER VIA P.B. #14

*—— b. – DISCONNECT EXIST. & CONNECT FDR R-1-TEMP AT TRANSFORMER (ENERGIZE)

c. – REMOVE EXIST. FDR. R-1 BACK TO SWGR.

L-4b 480/277V. ELEC CLOS "E" 59th TO 74th FLR'S FUTURE RUN 59th TO 86th FLR'S

a. – INSTALL BUSWAY L-4b FROM SWGR. BUS #3 TO END CAP & "T" TO EXIST BUSWAY L-4.

* { b. – REMOVE EXISTING BUSWAY L-4 TO EXIST. SWGR. REMOVE BACK TO EXIST. SWGR.

c. – INSTALL BUSWAY TRANSITION BOX ON EXIST. L-4 BUSWAY & CONNECT BUSWAY L-4b. (ENERGIZE) }

L-4a 480/277V. ELEC CLOS "E" FUTURE 67th TO 74th FLR'S

a. – INSTALL BUSWAY L-4a FROM SWGR. BUS #4 TO END CAP.

L-3 208/120V. TRANSF. ELEC CLOS "E" 59-74th FLR'S

SEE DIAGRAM STAGE III STEP (J), DWG. #E-91

R-17 EBASCO

a. – INSTALL R-17 CDT & WIRE FROM SWGR. BUS #3 TO P.B. #16.

*—— b. – DISCONNECT TEMPORARY & CONNECT FDR R-17 IN P.B. #16. (ENERGIZE)

c. – REMOVE TEMPORARY FDR (R-17-TEMP) BACK TO SWGR.

R-16 EBASCO

a. – INSTALL R-16 CDT & WIRE FROM SWGR. BUS #4 TO P.B. #16.

*—— b. – DISCONNECT TEMPORARY & CONNECT FDR R-16 IN P.B. #16. (ENERGIZE)

c. – REMOVE TEMPORARY FDR (R-16-TEMP) BACK TO SWGR.

3-4 FUJI BANK – SEE DWG E-5 STEP (A)

a. – INSTALL 3-4 CDT & WIRE FROM SWGR. BUS #3 TO P.B. #16.

*—— b. – DISCONNECT TEMPORARY & CONNECT FDR 3-4 IN P.B. #16. (ENERGIZE)

c. – REMOVE TEMPORARY FDR (FUJI-TEMP) BACK TO SWGR.

NOTE

1. – FOR LEGEND SEE DWG. #E-1, FOR GENERAL NOTES AND ABBREVIATIONS SEE DWG. #E-2.
2. – FOR NUMBER AND SIZE OF CONDUIT & WIRE SEE:
   - DWG. #E-85 – CONDUIT AND CABLE SCHEDULE
   - DWG. #E-99 – A.T.S. CONNECTION DIAGRAM
3. – SHUTTLE ELEVATORS #13, 15, 17, 19, 21 & 23 WILL BE WITHOUT POWER DURING THIS OUTAGE. SHUTTLE ELEVATORS #12, 14, 16, 18, 20, & 22 FED FROM SUBSTATION SS-75W WILL PROVIDE SERVICE TO THE 74TH FLOOR LOBBY.
4. – CONDUIT CABLE AND BUSWAY DESCRIBED IN SCHEDULE STAGE II STEP (I) SHALL BE INSTALLED PRIOR TO ENERGIZING BUS #3 & 4.
5. – ALL ELECTRICAL OUTAGES SHALL BE PERFORMED OUTSIDE NORMAL BUILDING OPERATING HOURS. SEE SPECIFICATIONS DIVISION 1 ENTITLED "CONDITIONS AND PRECAUTIONS" FOR DESCRIPTION OF ELECTRICAL POWER OUTAGE CATEGORIES.

I HEREBY CERTIFY THAT THE [illegible] TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS CONSTITUTING A PART OF CONTRACT NO. WTC-802.071 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE 6/21/95 Southern A. Nelson SPEC. WRITER

DATE 8/15/95 Peter L. Sweeney ENGINEER OF DESIGN

Sheet 176 of 224

THE PORT AUTHORITY OF NY & NJ

Peter L. Sweeney
ENGINEERING PROGRAM MANAGER WORLD TRADE CENTER

[illegible]
CHIEF ELECTRICAL ENGINEER

Engineering Department
Design Divisions

The World Trade Center Electrical/HVAC Upgrade Program

Title
TOWER ONE AND TWO LOW VOLTAGE SUBSTATIONS CONSTRUCTION AND INSTALLATION

ELECTRICAL

SUBSTATION SS-75E STAGE II LOAD TRANSFER SCHEDULE AND RISER DIAGRAM

No.	Date	Revision	Approved

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

LEAHY/FISCHER — Designed by; LEAHY — Drawn by; A.S. — Checked by.

Date 5-1-95 — Scale AS NOTED

Contract Number WTC 802.071 — Drawing Number E-90

PA-SHT REV 5